



DELAWARE RIVER BASIN COMMISSION

18 CFR Parts 410 and 440

Importations of Water Into and Exportations of Water From the Delaware River Basin; Discharges of Wastewater from High Volume Hydraulic Fracturing and Related Activities

AGENCY: Delaware River Basin Commission.

ACTION: Notice of proposed rulemaking; public hearing.

SUMMARY: The Commission proposes to amend its Comprehensive Plan and *Water Code* concerning importations of water into and exportations of water from the Delaware River Basin; to amend its *Special Regulations – High Volume Hydraulic Fracturing* to prohibit the discharge of wastewater from high volume hydraulic fracturing and related activities to waters or land within the Delaware River Basin; and to incorporate key elements of the latter proposed amendments into the Commission’s *Water Quality Regulations*.

DATES: *Written comments:* Written comments will be accepted through 5 p.m. on February 28, 2022.

Public hearings: Public hearings will be held remotely *via* Zoom on the following dates at the noted times. Details about accessing the hearings are available on the Commission’s website, www.drbc.gov.

1. December 8, 2021, 2:30 p.m. to no later than 4:30 p.m.
2. December 8, 2021, 6:30 p.m. to no later than 8:30 p.m.
3. December 15, 2021, 1 p.m. to no later than 3 p.m.
4. December 15, 2021, 4 p.m. to no later than 6 p.m.

ADDRESSES: *To submit written comments:* Written comments will be accepted until 5 p.m. on February 28, 2022, through the Commission's online public comment collection system at: <http://dockets.drbc.commentinput.com>. To request an exception from use of the online system based on lack of access to the Internet, please contact: Commission Secretary, DRBC, P.O. Box 7360, West Trenton, NJ 08628.

To register to speak at public hearings: Although attendance at the hearings is not limited and requires no registration, those who wish to provide oral comment at a hearing must register in advance to do so. Registration will be through EventBrite. Links to EventBrite for each of the public hearing dates and times are posted at www.drbc.gov. Online registration will remain open until 5 p.m. on the day prior to the hearing date or until all available speaking slots have been filled, whichever is earlier. Each person who wishes to provide oral comment may do so at only one public hearing. Registrations will be monitored, and if capacity is not adequate to accommodate all who wish to speak, additional opportunities may be added.

See **SUPPLEMENTARY INFORMATION** for details regarding the substance of written comments.

FOR FURTHER INFORMATION CONTACT: For information regarding the public hearings and submission of written comments, contact Kate Schmidt, Communications Specialist, at kate.schmidt@drbc.gov (preferred) or 609-883-9500, ext. 205. For information concerning the proposed amendments, contact Pamela Bush, Commission Secretary and Assistant General Counsel, at pam.bush@drbc.gov (preferred) or 609-477-7203.

SUPPLEMENTARY INFORMATION: The Delaware River Basin Commission (“DRBC” or “Commission”) is a regional interstate and Federal agency formed by compact legislation of four states and the United States in 1961¹ to manage the water resources of the Delaware River Basin (the “Basin”) without regard to political boundaries. Its members are, *ex officio*, the governors of the Basin states (Delaware, New Jersey, New York, and Pennsylvania) and the commander of the U.S. Army Corps of Engineers North Atlantic Division, who represents the United States.

Background

By Resolution No. 91-9 on June 19, 1991, the Commissioners amended the Commission’s Comprehensive Plan by the addition of policies and regulations relating to transfers of water into and out of the Basin. These provisions were later codified in the Delaware River Basin Water Code.² The Commission on November 30, 2017, proposed regulations that, in part, concerned inter-Basin transfers of water and wastewater associated with high volume hydraulic fracturing (“HVHF”) (“2017 draft rule”) and that addressed the treatment and discharge of wastewater generated by HVHF.³ Concurrently with adoption of its final rule by Resolution No. 2021-01 on February 25, 2021, the concerned the exportation of water to support HVHF and the importation, treatment, and

¹ United States Public Law 87-328, Approved Sept. 27, 1961, 75 Statutes at Large 688; 53 Delaware Laws, Ch. 71, Approved May 26, 1961; New Jersey Laws of 1961, Ch. 13, Approved May 1, 1961; New York Laws of 1961, Ch. 148, Approved March 17, 1961; Pennsylvania Acts of 1961, Act. No. 268, Approved July 7, 1961.

² Delaware River Basin Water Code (hereinafter “Water Code”) (incorporated by reference at 18 CFR part 410), section 2.30.

³ 83 FR 1586, Jan. 12, 2018.

discharge of “produced water” and “CWT wastewater” as defined therein.⁴ By a Resolution for the Minutes on February 25, 2021, the Commissioners directed the Executive Director to prepare and publish for public comment a set of amendments to the Comprehensive Plan and implementing regulations to update the Commission’s policies and provisions concerning importation and exportation of water and wastewater from and into the Basin and “to include such other proposed amendments ... as [the Executive Director, in consultation with the Commissioners] deem necessary or appropriate.”

In accordance with the Commissioners’ February 25, 2021, directive, the Commission is proposing amendments to its Comprehensive Plan and regulations to better provide for the planning, conservation, utilization, development, management and control of the Basin’s water resources in connection with: the importation of water, including wastewater, into the Basin; the exportation of water, including wastewater, from the Basin; and the discharge of wastewater from HVHF and HVHF-related activities. The Commission proposes to amend the Water Code by clarifying the circumstances in which exportations of water, including wastewater, from the Basin and importations of water, including wastewater, into the Basin are considered by the Commission and the factors to be used in evaluating whether such proposed imports and exports of water may be approved. The proposed amendments will not apply to importations and exportations

⁴ 83 FR 1586, pp. 1589, 1591 (defining “produced water” as “any water or fluid returned to the surface through the production well as a waste product of hydraulic fracturing,” and defining “CWT wastewater” as “wastewater or effluent resulting from the treatment of produced water by a centralized waste treatment facility (‘CWT’)”).

that existed prior to the effective date of any final rules, but are proposed to apply to increases in the rate or volume of existing importations and exportations. The Commission also proposes to amend its Special Regulations regarding HVHF by the addition of a finding that the discharge of wastewater from HVHF and HVHF-related activities poses significant, immediate, and long-term risks to the development, conservation, utilization, management, and preservation of the Basin's water resources, and that controlling future pollution by prohibiting such discharge is required to effectuate the Comprehensive Plan, avoid injury to the waters of the Basin as contemplated by the Comprehensive Plan and protect the public health and preserve the waters of the Basin for uses in accordance with the Comprehensive Plan. The finding is accompanied by a provision prohibiting the discharge to waters of the Basin of wastewater from HVHF and HVHF-related activities.

Managing water quantity and quality through a basinwide Comprehensive Plan.

The Delaware River Basin Compact directs the Commission to develop and adopt, and from time to time review and revise, a Comprehensive Plan “for the immediate and long range development and use of the water resources of the [B]asin” to which Federal, State and local agencies and private parties are bound.⁵ Through the adoption of a series of policies and regulations establishing and amending its Comprehensive Plan, the Commission over the past half-century has developed and implemented in-stream water quality standards throughout the Basin, prohibited degradation of groundwater,

⁵ Compact, *supra* note 1, sections 3.2 and 13.1.

instituted reservoir drought operating plans, established protected areas to prevent the depletion of groundwater, and provided special protection to the non-tidal portion of the Delaware River to preserve its exceptionally high scenic, recreational, ecological and water supply values. As the agency through which the five signatory parties to the Compact—the States of Delaware, New Jersey and New York, the Commonwealth of Pennsylvania, and the United States—collectively manage the Basin’s water resources on a regional basis, the Commission has taken these steps to, among other things, ensure an adequate supply of suitable quality water for domestic use, recreation, power generation, industrial activity and aquatic life, and to accommodate large out-of-Basin diversions by the City of New York and the State of New Jersey that are authorized by the 1954 decree of the U.S. Supreme Court in *New Jersey v. New York*, 347 U.S. 995 (the “Decree”).

Water Exportation. Since June 19, 1991, the Commission’s policy as articulated in the Comprehensive Plan and Water Code (incorporated by reference at 18 CFR part 410) has been to discourage the exportation of water from the Basin on grounds that the Basin’s waters “are limited in quantity and the Basin is frequently subject to drought warnings and drought declarations due to limited water supply storage and streamflow during dry periods.”⁶

In allocating the waters of the Basin under Section 3.3 of the Compact, the Commission is constrained by limited reservoir storage, particularly during periods of low

⁶ See Water Code section 2.30.2.

flow.⁷ Droughts of varying intensity and length have impacted the Basin since the Commission was formed in October 1961.⁸ The Commission has implemented drought operations thirteen times over six decades, including during seven droughts so severe the Commission declared them to be drought emergencies.⁹

The Commission's current Comprehensive Plan includes three major types of exportations of water from the Basin, many of which have also been the subject of DRBC project approvals:

- Pre-Compact out-of-Basin diversions by New York City and the State of New Jersey authorized by the Decree; and with the unanimous consent of the parties to the Decree in accordance with Section 3.3 of the Compact, modifications of such diversions;
- Out-of-Basin transfers approved on a long-term basis pursuant to Section 3.8 and Article 11 of the Compact to meet the needs of public water systems with service areas straddling or adjacent to a Basin boundary; and
- Out-of-Basin transfers approved on a temporary or emergency basis pursuant to Section 3.8 of the Compact to ensure the public health and safety of communities adjacent to or straddling a Basin boundary.

⁷ See e.g., Water Code section 2.30.2; U.S. Department of the Interior U.S. Geological Survey Office of the Delaware River Master, *History of the Reservoir Releases Program in the Upper Delaware River Basin*, available at: <https://webapps.usgs.gov/odrm/about/history>.

⁸ Delaware River Basin Commission, *An Overview of Drought in the Delaware River Basin* (Feb. 2019), Sec. "DRBC's Basinwide Drought Actions," par. 1, available at: https://www.state.nj.us/drbc/library/documents/drought/DRBdrought-overview_feb2019.pdf.

⁹ *Id.*, at Table 1: Basinwide Drought Actions (two of the emergency actions were conditional and did not go into effect).

The draft amendments establish the circumstances under which proposed exportations that meet the existing threshold for review established by the Commission's Rules of Practice and Procedure may be considered for approval. Under the proposed rule, the Commission may approve an exportation of water from the Basin if the export is needed to serve a straddled or adjacent public water system; if it is required on a temporary, short-term, or emergency basis to meet public health and safety needs; or if it comprises an exportation of wastewater. The proposed amendments provide that in reviewing proposed exportations, an analysis of alternatives to the proposed exportation will be considered, along with factors that include the effects of the proposal on public health and safety and effectuation of the Comprehensive Plan. The amended rules will further the Commission's objectives of conserving, utilizing, managing, and controlling the Basin's water resources by ensuring that the uses included within the Comprehensive Plan are protected, and will preserve the diversions, compensating releases, rights, conditions, and obligations of the parties to the U.S. Supreme Court Decree of 1954 in *New Jersey v. New York*, 347 U.S. 995 (1954).

Water Importation. At the time the Commission was created in 1961, the tidal Delaware River suffered from water quality impairments that included severe hypoxia (lack of dissolved oxygen) annually from May through November, preventing the passage of fish species that migrate between marine and fresh waters to reproduce. A key step in the Estuary's restoration was the establishment of water quality uses and criteria by the Commission in 1967. Because even after treatment, wastewater typically contains oxygen-depleting substances, the Commission has for decades used wasteload

allocations for carbonaceous oxygen demand to protect the uses it established, including by maintaining dissolved oxygen in the Estuary at levels sufficient to support aquatic life.¹⁰

The presence of persistent bioaccumulative toxic contaminants in sediment, the water column and fish tissue is a legacy of the Delaware River Estuary's nearly two centuries of industrial use. Although water quality improvements over the past fifty years have substantially increased the variety and abundance of Estuary fish, multiple species are contaminated with polychlorinated biphenyls ("PCBs"), dioxins and furans, mercury, and dieldrin at levels exceeding human health risk advisory limits for their consumption.¹¹ By Resolution No. 2000–4 the Commission in 2000 determined that allocations of the waste assimilative capacity of the Estuary were necessary in Water Quality Zones 2 through 5 to maintain stream quality objectives for acute toxicity and chronic toxicity. The Commission and its members face new challenges in the emergence of previously unknown contaminants now understood to have adverse impacts on human health and aquatic life.

Although water quality management objectives in the Delaware River Estuary have of necessity prioritized restoration, the focus in the non-tidal Delaware River has been to prevent degradation of waters that are exceptionally clean. By resolutions in

¹⁰ See Delaware River Basin Water Code, sections 3.30.2 D.2, 3.30.3 D.2, 3.30.4 D.2, 3.30.5 D.2, 3.30.6 D.2.

¹¹ See Delaware Department of Natural Resources and Environmental Control, *Delaware Fish Consumption Advisories* (Jan. 2018), available at: <https://documents.dnrec.delaware.gov/fw/Fisheries/Documents/2018-Delaware-Fish-Consumption-Advisory-Table.pdf>; New Jersey Department of Environmental Protection & New Jersey Department of Health, *Fish Smart, Eat Smart: A guide to Health Advisories for Eating Fish and Crabs Caught in New Jersey Waters* (Nov. 2020), available at: <https://www.nj.gov/dep/dsr/fish-advisories.pdf>; Pennsylvania Department of Environmental Protection, *Commonwealth of Pennsylvania Public Health Advisory 2021 Fish Consumption* (Feb. 2021), available at: <https://pfbc.pa.gov/fishpub/summaryad/sumconsumptionotepdf>.

1992, 2005, and 2008, the Commission designated the entire 197-mile reach of the non-tidal main stem Delaware River from Hancock, New York, to Trenton, New Jersey, as “Special Protection Waters,” due to their exceptionally high scenic, recreational, ecological, and water supply values. The importance of these waters to the public is underscored by their national designation: the non-tidal main stem within and downstream of potential HVHF activity includes 147 river miles designated by Congress as parts of the National Wild and Scenic Rivers System, including 113 river miles that have also been designated as units of the National Park System.¹² New or expanded pollutant loadings to Special Protection Waters—whether from imported wastewater or wastewater generated within the Basin—are permitted only if they do not measurably change the defined, existing water quality.

For the foregoing reasons, since June 19, 1991, the Commission’s policy as set forth in the Water Code and Comprehensive Plan is to discourage the importation of wastewater into the Basin on grounds that the Basin’s waters “have limited assimilative capacity and limited capacity to accept conservative substances without significant impacts.”¹³ The Commission will continue to use its authority to preclude the discharge

¹² See 16 U.S.C. 1274(a)(19)–(20) (Upper Delaware Scenic and Recreational River and Delaware Water Gap National Recreation Area), 16 U.S.C. 1274(a)(165) (Lower Delaware River and Associated Tributaries). Other Basin waters included in the Wild and Scenic Rivers System and protected by state antidegradation programs include: 190 miles of the White Clay Creek and its tributaries in Delaware and Pennsylvania, 35 miles of the Maurice River and its tributaries in New Jersey, and 25 miles of the Musconetcong River, also in New Jersey. See, 16 U.S.C. 1274(a)(163) (White Clay Creek and its tributaries); 16 U.S.C. 1274(a)(146)–(149) & 1274(a)(151)–(153) (Maurice River and its tributaries); 16 U.S.C. 1274(a)(169) (Musconetcong River).

¹³ See Water Code section 2.30.2 (or “limited capacity to assimilate pollutants” as reflected in the proposed amendments).

of wastewater that would impede the restoration of water quality and aquatic life in the tidal Delaware River or that would degrade the Basin's Special Protection Waters.

The proposed rules regarding importation clarify the factors the Commission will use in evaluating proposed importations that meet the existing thresholds for review established by the Commission's Rules of Practice and Procedure. Although importations of wastewater are "discouraged," they may be permitted after careful consideration to ensure that available alternatives have been evaluated, treatment is employed to ensure applicable water quality criteria are achieved, restoration efforts are not impeded, and uses incorporated in the Commission's Comprehensive Plan are protected. The amended rules will further the Commission's objectives of conserving, utilizing, managing, and controlling the Basin's water resources by ensuring continued protection of the uses included within the Comprehensive Plan.

Notably, to date, the Commission has not approved transfers into the Basin of wastewater associated with HVHF, and no applications for such transfers are under consideration. Additionally, in many instances, the Commission has conditioned its approvals of wastewater discharge projects on a requirement that no importation, treatment or discharge of HVHF wastewater may be undertaken by a docket holder without the Commission's prior review and approval. As discussed below, amendments to the Commission's Special Regulations at 18 CFR part 440—High Volume Hydraulic Fracturing are being proposed that would prohibit the discharge of HVHF wastewater to water or land within the Basin.

Prohibition on Discharge of Wastewater from HVHF and HVHF-Related Activities.

The Commission's Comprehensive Plan and Water Code provide in part that "[t]he quality of Basin [surface] waters, except intermittent streams, shall be maintained in a safe and satisfactory condition" for uses that include, "agricultural, industrial, and public water supplies after reasonable treatment, except where natural salinity precludes such uses; ... wildlife, fish and other aquatic life; recreation; navigation; [and] controlled and regulated waste assimilation to the extent that such use is compatible with other uses."¹⁴ Similarly, the Comprehensive Plan and Water Code provide that the quality of ground waters of the Basin "shall be maintained in a safe and satisfactory condition, except where such uses are precluded by natural quality, for ... domestic, agricultural, industrial, and public water supplies; [and] ... a source of surface water suitable for recreation, wildlife, fish and other aquatic life."¹⁵

In its proposed and final rules prohibiting HVHF within the Basin in November 2017 and February 2021, respectively,¹⁶ the Commission recognized that the treatment disposal of HVHF wastewater, among other activities associated with HVHF, posed risks, vulnerabilities and impacts to the Basin's water resources.¹⁷ The peer-reviewed science

¹⁴ Water Code, section 3.10.2. B.

¹⁵ *Id.*, section 3.40.3.

¹⁶ 83 FR 1586, Jan. 12, 2018; 86 FR 20628, Apr. 21, 2021.

¹⁷ See, e.g., DRBC Resolution No. 2021-01, p. 4, par. 4. Available at: https://www.state.nj.us/drbc/library/documents/Res2021-01_HVHF.pdf. See generally, Delaware River Basin Commission, *Comment and Response Document: Proposed Amendments to the Administrative Manual and Special Regulations Regarding High Volume Hydraulic Fracturing Activities; Additional Clarifying Amendments*, Feb. 25, 2021 (hereinafter, "CRD"), at, e.g., pp. E-1, 65-66 ("Synthesis" of response

discussed in detail in the Comment and Response Document adopted concurrently with the Commission’s final rule (hereinafter, the “CRD”)¹⁸ demonstrates that for a variety of reasons, protecting public health and preserving the Basin’s water resources for uses in accordance with the Comprehensive Plan require that discharges of HVHF wastewater to Basin waters or land be prohibited.

Hydraulic fracturing wastewater may contain a complex blend of constituents, including known carcinogens, neurotoxins, or endocrine disruptors, or are characterized by reproductive or developmental toxicity or adverse immune system effects.¹⁹ As discussed at length in the CRD, some of the chemicals used are not known because they are accorded protection as trade secrets.²⁰ The U.S. Environmental Protection Agency (hereinafter, “EPA”), has reported that the majority of chemicals associated with hydraulic fracturing, both known and unknown, have not undergone significant toxicological assessment.²¹ The impacts from those chemicals to human health and

to comments concerning spills); pp. 158-59 (water quality impacts from discharges of treated hydraulic fracturing wastewater). The CRD is available at:

https://www.state.nj.us/drbc/library/documents/CRD_HVHFrulemaking.pdf

¹⁸ See CRD, *supra* note 15.

¹⁹ CRD, *supra* note 15, pp. 131, 161, and 255 (citing E.G. Elliott, *et al.*, *A systematic evaluation of chemicals in hydraulic-fracturing fluids and wastewater for reproductive and developmental toxicity*, J. Exposure Science & Environmental Epidemiology, 27: 90–99 (2017)). See also, United States Environmental Protection Agency (“U.S. EPA”), *Hydraulic fracturing for oil and gas: Impacts from the hydraulic fracturing water cycle on drinking water resources in the United States* (final report) (EPA/600/R-16/236F) (2016) (hereinafter “U.S. EPA 2016 Assessment”), p. ES-20; U.S. EPA, *Technical development document for the effluent limitations guidelines and standards for the oil and gas extraction point source category* (EPA-820-R-16-003), 2016, pp. 43–47 (Sec. 1.2).

²⁰ See CRD, *supra* note 15, pp. 259-264.

²¹ *Id.*, p. 132 (citing U.S. EPA 2016 Assessment, *supra* note 17, p. ES-42-45, 9-1).

aquatic life are thus undetermined.²² In addition to the potential pollutants in fracturing fluid, the fluid returned from an oil or natural gas well after HVHF (typically called “produced water” and including “flowback water”) is mixed with water from the target formation, which contains: salts, including chloride, bromide, sulfate sodium, magnesium, and calcium; metals, including barium, manganese, iron, and strontium; naturally-occurring organic compounds, including benzene, toluene, ethylbenzene, and xylenes; oil and grease; and radioactive materials, including radium, found in ancient sea water trapped within the oil- and gas-bearing shale formations.²³

A report by the U.S. Geological Survey (“USGS”) observed that the salts in shale waters (which are sometimes referred to as “total dissolved solids” or “TDS”) reached extreme concentrations over millions of years, and their chemical interactions with surrounding rock can mobilize radionuclides.²⁴ The USGS authors cite radioactivity as a key characteristic of the HVHF waste stream that potentially represents a substantial risk to water resources, aquatic ecosystems and biota, and public health, if released.²⁵

Wastes associated with oil and natural gas exploration, development and production, including oil and gas drilling fluids and produced waters, are exempt from

²² U.S. EPA, *Detailed study of the centralized waste treatment point source category for facilities managing oil and gas extraction wastes*. (EPA-821-R-18-004) (2018), p. 9-36. Available at: https://www.epa.gov/sites/default/files/2018-05/documents/cwt-study_may-2018.pdf.

²³ CRD, *supra* note 15, pp. E-6, 71.

²⁴ CRD, *supra* note 15, p. 84 (citing E.L. Rowan, *et al.*, *Radium content of oil- and gas-field produced waters in the Northern Appalachian Basin (USA): Summary and discussion of data*, U.S. Department of the Interior, U.S. Geological Survey: Scientific Investigations Report 2011-5135 (2011)).

²⁵ CRD, *supra* note 15, p. 86 (citing E.L. Rowan, *et al.*, *supra* note 22) (also noting that chemically, radium behaves in a manner similar to calcium and is capable of bioaccumulation in plants and animals).

federal regulations for the management of hazardous wastes.²⁶ But these wastes may cause harm to public health and the environment if they are not properly managed. The CRD references multiple studies documenting adverse impacts to water resources from HVHF wastewater after treatment, whether by municipal or industrial treatment facilities.²⁷ Because produced water contains high TDS and dissolved inorganic constituents that most publicly owned treatment works and other municipal wastewater treatment facilities are not designed to remove, EPA in 2016 issued a final rule banning the treatment and discharge of oil and gas extraction wastewater from publicly owned treatment works (“POTWs”).²⁸ Privately owned treatment works that treat primarily domestic and commercial wastewater remain outside the scope of EPA’s “zero discharge” rule.

The Commonwealth of Pennsylvania manages the risks associated with disposal of HVHF wastewater in part through a detailed statute and regulations focused on protecting water resources and public health while preserving commercial interests. Regulations adopted in 2010 pursuant to the Pennsylvania Clean Streams Law address risks associated with HVHF wastewater treatment and discharge by limiting new

²⁶ See, e.g., U.S. Environmental Protection Agency, Office of Solid Waste, *Exemption of Oil and Gas Exploration and Production Wastes from Federal Hazardous Waste Regulations*, EPA530-K-01-004 (2002).

²⁷ See CRD, *supra* note 15, pp. 18-19, 128-143. See also U.S. EPA, *infra* note 26 (regarding impacts associated with discharges from municipal wastewater treatment plants); U.S. EPA, *supra* note 20 (regarding impacts associated with discharges from the industrial wastewater treatment facilities known as “CWTs”).

²⁸ U.S. EPA, *Effluent Limitations Guidelines and Standards for the Oil and Gas Extraction Point Source Category*, 81 FR 41845 (Aug. 29, 2016) (preamble). See also 81 FR 88126 (Dec. 7, 2016) (extending deadline for compliance); CRD, *supra* note 15, pp. 18-19, 128.

discharges of TDS, chlorides, barium and strontium in treated wastewater, regardless of the type of discharge – public, private, municipal or industrial.²⁹

Research has demonstrated that even with specialized treatment, however, the discharge of HVHF wastewater to surface waters can adversely impact downstream waters. The Commission's CRD contains an extensive discussion of the potential risks associated with the treatment and discharge of HVHF wastewater to Basin waters from CWTs.³⁰ The Commission concluded that treatment of HVHF wastewater at CWTs with subsequent discharge of effluent to the waters of the Basin would present significant risks to the receiving waters.³¹

Growth in Marcellus shale gas production is anticipated,³² and in the Marcellus production area immediately west of the Basin, recent data show increasing water use by the shale gas production industry, which may result in increasing volumes of wastewater.³³ Although additional factors may affect demand for HVHF wastewater treatment and discharge options, these shale gas production and water use trends create the potential for increased demand for CWT services in the region.³⁴ To protect the public health and preserve the waters of the Basin for uses in accordance with the

²⁹ 25 Pa. Code section 95.10. *See also* CRD, *supra* note 15, pp. 132, 178.

³⁰ *See* CRD, *supra* note 15, pp. 130-143, 178. *See generally* U.S. EPA, *supra* note 20.

³¹ *See* CRD, *supra* note 15, p. 138.

³² U.S. EPA, *supra* note 20, p. 8-6.

³³ *See* CRD, *supra* note 15, p. 16 (reporting increased length of natural gas well laterals and increased use of water per foot of well fractured in the Susquehanna River Basin, which adjoins the Basin) (citing Susquehanna River Basin Commission, *Water use associated with natural gas development in the Susquehanna River Basin: An update of activities through December 2018* (Publication No. 323) (2020)).

³⁴ *See* U.S. EPA, *supra* note 20, pp. 8-4 – 8-6.

Comprehensive Plan, the Commission thus proposes to prohibit the discharge of treated or untreated HVHF wastewater to waters or land within the Basin.

Water Quality Regulations. To facilitate the alignment of certain Basin state discharge permits with the Commission’s proposed regulations regarding wastewater from high volume hydraulic fracturing, the Commission further proposes to amend its Water Quality Regulations, Article 4—Application of Standards. The proposed amendment would consist of a new section 4.50, captioned “Wastewater from High Volume Hydraulic Fracturing and Related Activities,” expressly incorporating into the Water Quality Regulations the determination and prohibition comprising § 440.4 of title 18 of the CFR, and the purpose and definitions encompassing §§ 440.1 and 440.2. Existing section 4.50 of the Water Quality Regulations and its sub-paragraphs 4.50.1 through 4.50.6 are proposed to be redesignated as section 4.60 and 4.60.1 through 4.60.6.

Incorporation by Reference. The entirety of the Water Code, including section 2.30, and the entirety of the Water Quality Regulations, including Article 4, are incorporated by reference into the Code of Federal Regulations at 18 CFR 410.1, and each was last approved for incorporation by reference by the Office of the Federal Register (“OFR”) on December 4, 2013. In accordance with OFR’s regulations concerning incorporation by reference,³⁵ the sections of this preamble titled “*Water Importation*,” “*Water Exportation*,” and “*Water Quality Regulations*,” summarize the proposed

³⁵ See 1 CFR part 51. See also, *id.*, § 51.5B.

amendments to section 2.30 of the Water Code and Article 4 of the Water Quality Regulations.

The Commission further proposes: (a) to amend § 410.1(c) of title 18 of the Code of Federal Regulations by replacing the date of incorporation by reference there with respect to each of the Water Code and Water Quality Regulations (both, December 4, 2013), with the date on which the Commission adopts a final rule pursuant to this proposal; and (b) to update the Commission's mailing and web site addresses.

Interested persons may obtain or inspect copies of the Water Code and the Water Quality Regulations at the Delaware River Basin Commission, 25 Cosey Road, West Trenton, New Jersey 08628-0360, 609-883-9500, or on the Commission's website, www.drbc.gov.

Public Process

Substance of comments: The Commission expressly seeks comment on the effects the proposed rules may have within the Basin on: water availability, the control and abatement of water pollution, economic development, the conservation and protection of drinking water supplies, the conservation and protection of aquatic life, the conservation and protection of water quality in Special Protection Waters, and the protection, maintenance and improvement of water quantity and quality Basinwide. The Commission welcomes and will consider any other comments that concern the potential effects of the draft rules on the conservation, utilization, development, management and control of the water and related resources of the Basin. Comments on matters not within the scope of the proposed rules may not be considered.

Non-digitized, voluminous materials such as books, journals or collected letters and petitions will not be accepted. Digital submissions of articles and websites must be accompanied by a statement containing citations to the specific findings or conclusions the commenter wishes to reference.

Submission of written comments. Written comments along with any attachments should be submitted through the Commission's web-based comment system (<http://dockets.drbc.commentinput.com>) until 5 p.m. on February 28, 2022. All materials should be provided in searchable formats, preferably in .pdf searchable text. Notably, a picture scan of a document may not result in searchable text. Comments received through any method other than the designated on-line method, including *via* email, fax, postal/delivery services or hand delivery, will not be considered or included in the rulemaking record unless an express exception has been granted. Requests for exceptions from the web-based-submissions-only policy based on lack of access to the web-based comment system may be addressed to: Commission Secretary, DRBC, P.O. Box 7360, West Trenton, NJ 08628.

Public hearings. To provide for an orderly process and to support public and community health measures, the Commission is conducting its public hearings virtually. Attendance at the hearings is not limited and requires no registration. However, to eliminate uncertainty on the part of attendees about whether they will have an opportunity to provide oral comment, those who wish to speak at a hearing must register in advance to do so, using links on the Commission's website. Registrations will be

monitored, and if capacity is not adequate to accommodate all who wish to speak, additional opportunities may be added. Key elements of the procedure are as follows:

- Online registration to speak at a public hearing will remain open until 5 p.m. the day prior to each hearing.
- Each person who wishes to provide oral comment may do so at only one public hearing.
- Speaking time will be limited to approximately three minutes per speaker.
- Elected government officials and their staff will have the opportunity to identify themselves when registering to attend a hearing.
- Attendance at the public hearings is not limited and requires no advance registration.
- Written and oral comment will receive equal consideration.

The Commission appreciates the public's participation and input on this important matter.

More Information. Detailed and up-to-date information about the public process, including all proposed rule text, related documents and links for online registration to speak at each of the scheduled public hearings, can be found on the DRBC website, www.drbc.gov.

List of Subjects

18 CFR Part 410

Incorporation by reference, Water pollution control, Water resources, Water supply.

18 CFR Part 440

Wastewater discharge, Water pollution control, Water resources.

For the reasons set forth in the preamble, the Delaware River Basin Commission proposes to amend title 18, chapter III of the Code of Federal Regulations as follows:

PART 410—BASIN REGULATIONS; WATER CODE AND ADMINISTRATIVE MANUAL—

PART III WATER QUALITY REGULATIONS

1. The authority citation for part 410 continues to read as follows:

Authority: Delaware River Basin Compact, 75 Stat. 688.

2. Amend § 410.1 by revising paragraph (c) to read as follows.

§ 410.1 Basin regulations—Water Code and Administrative Manual—Part III Water Quality Regulations.

* * * * *

(c) Work, services, activities, and facilities affecting the conservation, utilization, control, development, or management of water resources within the Delaware River Basin are subject to regulations contained within the Delaware River Basin Water Code with Amendments through [EFFECTIVE DATE OF FINAL RULE], and the Administrative Manual—Part III Water Quality Regulations with Amendments through [EFFECTIVE DATE OF FINAL RULE]. Both the Delaware River Basin Water Code and the Administrative Manual—Part III Water Quality Regulations are incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain or inspect copies at the Delaware River Basin Commission

(DRBC), 25 Cosey Road, West Trenton, New Jersey 08628-0360, 609-883-9500, www.drbc.gov, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

PART 440—HIGH VOLUME HYDRAULIC FRACTURING

3. The authority citation for part 440 continues to read as follows:

Authority: Delaware River Basin Compact (75 Stat. 688).

4. Amend § 440.1 by revising paragraph (d) to read as follows:

§ 440.1 Purpose, authority, and relationship to other requirements.

* * * * *

(d) *Relationship to other Commission requirements.* The provisions of this part are in addition to all applicable requirements in other Commission regulations in this chapter, dockets, permits, and determinations.

* * * * *

5. Amend § 440.2 by revising the introductory text, adding in alphabetical order definitions for “HVHF-related activities” and “Wastewater from high volume hydraulic fracturing”, and revising the definition of “Water resource(s)” to read as follows:

§ 440.2 Definitions.

For purposes of this part, the following terms and phrases have the meanings provided. Some definitions differ from those provided in regulations of one or more

agencies of the Commission's member states and the Federal Government. Others are consistent with terms defined by the Delaware River Basin Compact.

* * * * *

HVHF-related activities are:

- (1) Construction of an oil or natural gas production well that is to be stimulated using HVHF as defined in this section;
- (2) Chemical mixing or storage of proppant, chemicals and other additives to make fracturing fluid; and
- (3) Management of wastewater from hydraulic fracturing, including storage, disposal, treatment, or reuse in hydraulic fracturing operations or other uses.

* * * * *

Wastewater from high volume hydraulic fracturing is:

- (1) Any wastewater, brine, sludge, chemicals, naturally occurring radioactive materials, heavy metals, or other contaminants that have been used for or generated by high volume hydraulic fracturing or HVHF-related activities;
- (2) Leachate from solid wastes associated with HVHF-related activities, except if the solid wastes were lawfully disposed of in a landfill within the Basin prior to [EFFECTIVE DATE OF FINAL RULE]; and
- (3) Any products, co-products, byproducts, or waste products resulting from the treatment, processing, or modification of the wastewater described in paragraphs (1) and (2) of this definition.

(4) Leachate from solid wastes associated with HVHF-related activities is excluded from this definition if the solid wastes were lawfully disposed of in a landfill within the Basin prior to [EFFECTIVE DATE OF FINAL RULE].

Water resource(s) is, in accordance with section 1.2(i) of the *Delaware River Basin Compact*, water and related natural resources in, on, under, or above the ground, including related uses of land, which are subject to beneficial use, ownership or control within the Delaware River Basin.

6. Add § 440.4 to read as follows:

§ 440.4 Wastewater from high volume hydraulic fracturing and related activities.

(a) *Determination.* The Commission has determined that the discharge of wastewater from high volume hydraulic fracturing and HVHF-related activities poses significant, immediate, and long-term risks to the development, conservation, utilization, management, and preservation of the Basin's water resources. Controlling future pollution by prohibiting such discharge is required to effectuate the Comprehensive Plan, avoid injury to the waters of the Basin as contemplated by the Comprehensive Plan and protect the public health and preserve the waters of the Basin for uses in accordance with the Comprehensive Plan.

(b) *Prohibition.* No person may discharge wastewater from high volume hydraulic fracturing or HVHF-related activities to waters or land within the Basin.

Dated: October 28, 2021.

Pamela M. Bush,

Commission Secretary/Assistant General Counsel.

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